UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,338	03/29/2001	Stephen L. Robinson	7896.09	8832

25314	7590	11/08/2004

GUNSTER, YOAKLEY & STEWART, PA
BROWARD FINANCIAL CENTRE, SUITE 1400
500 EAST BROWARD BLVD
FT LAUDERDALE, FL 33394

EXAMINER
BENGZON, GREG C

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/823,338	ROBINSON, STEPHEN L.
	Examiner	Art Unit
	Greg Bengzon	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

This application has been examined. Claims 1-11 are pending.

Priority

The effective date for the subject matter described in the pending claims in this

application is March 29, 2001.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on March 29,2001 was

filed after the mailing date of the application on March 29, 2001. The submission is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter.

With respect to Claim 1, the subject matter described in the claim is considered

to be solely non-functional, descriptive material.

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas or the mere manipulation of abstract ideas are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 rejected under 35 U.S.C. 102(b) as being anticipated by Diaz et al. (US Patent 458232) hereinafter referred to as Diaz.

With respect to Claim 1, Diaz discloses a frame for a message in a real-time

network protocol for controlling the routing of information on a data communications

network, comprising: a preamble field having a single-byte pattern; a single-byte control

field; a data count field having from one to three bytes; a destination address field

having from one to four bytes; a source address field having from one to four bytes; a

data field having from zero to 254 bytes; and a 16-bit checksum field. (Figure 2 Item 24

Item 30, Figure 15a Items 270-276, Column 8 Lines 5-10, Lines 30-35, Column 15 Lines

40-45, Column 35 Lines 35-40, Column 26 Lines 15-20)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kryskow et al. (US Patent 4491946) hereinafter referred to as Kryskow in view of Diaz

et al. (US Patent 4858232) hereinafter referred to as Diaz.

With respect to Claim 2, Kryskow discloses a real-time network protocol for

controlling the routing of information on a data communications network among a

plurality of peer network devices comprising a token passing structure for granting

message transmission rights on the network having a one-byte field in each message

from one of said devices wherein said field includes a single grant bit for determining

whether the right to control access to the network is to be maintained by the said device

generating the message or passed to the next sequential device of said plurality of

devices. (Column 5 Lines 30-40, Column 28 Lines 30-50)

With respect to Claim 3, Kryskow discloses the protocol of claim 2 wherein said

one-byte field includes a response required bit for indicating whether or not a response

is required from one of said plurality of devices to the message from said message

generating device. (Column 28 Lines 45-48) Kryskow discloses of state variable

definitions on Boolean format, having true, set or clear states.

With respect to Claim 4, Kryskow discloses the protocol of claim 3 wherein said

one-byte field includes a response bit for indicating whether or not the message

containing the bit is a response to a request from another device. (Column 28 Lines 29-

24) Kryskow discloses of state variable definitions on Boolean format, having true, set

or clear states.

However, while Kryskow describes a message format that is adaptable to any

high level data communications (HDLC) protocol, Kryskow does not disclose of the

message format including a designated control field to hold the indicators described in

Claims 2-3.

Diaz discloses of a message format that includes a control field as part of the

frame message. The control field provides sufficient information to independently

specify a type of service and specifying various service parameters. (See Diaz Column

8 Lines 30-35)

Kryskow and Diaz are analogous art because they present concepts and

practices regarding message formats for use in communications systems using token-

passing techniques. It is respectfully suggested that at the time of the invention it would

have been obvious to a person of ordinary skill in the art to include a separate and

distinct control field as described by Diaz as part of the message frame in order to

contain various information related to token control and message control for the token-

passing communication system described by Kryskow. The suggested motivation for

doing so would have been to have a central location for keeping control information so

that the message is processed and routed correctly through the different devices and

communication layers.

Therefore it would have been obvious to combine the control field described by

Diaz with the message format and protocol described by Kryskow in order to obtain the

invention as specified in Claims 2-4.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kryskow et al. (US Patent 4491946) hereinafter referred to as Kryskow in view of Diaz

et al. (US Patent 4858232) hereinafter referred to as Diaz, further in view of Young (US

Patent 5487152).

With respect to Claims 5, the combined teachings of Kryskow and Diaz, when applied together, substantially disclose the protocol of Claim 4 having a one-byte control field, as shown in the rejection for Claims 2-4.

With respect to Claims 6, the combined teachings of Kryskow and Diaz, when applied together, substantially disclose the protocol of Claim 5 having a one-byte control field, as shown in the rejection for Claims 2-4.

However, the combined teachings of Kryskow and Diaz do not disclose of a control field that indicates the number of source and destination address bytes used in the message, where the said source and destination addresses may be 1-,2-,3- or 4-bytes long.

Young discloses of a frame message format that includes a control field. The control field contains information that specifies the length of the source and destination address. Young also discloses using source addresses and destination addresses that range from 2 bytes to 6 bytes long. (See Young Column 2 Lines 15-30)

Kryskow , Diaz, and Young are analogous art because they present concepts and practices regarding message formats for use in communications systems using token-passing techniques. It is respectfully suggested that at the time of the invention it would have been obvious to a person of ordinary skill in the art to include separate source address and destination address length indicators as described by Young in the control field described by the combined teachings of Kryskow and Diaz, such indicators

indicating a 1-,2-,3- or 4-byte long address. The suggested motivation for doing so

would have been to facilitate correct decoding of the addresses and correct routing of

the message through the different devices and communication layers.

Therefore it would have been obvious to combine the address length indicator in

the control field described by Young with the message format and protocol described by

the combined teachings of Kryskow and Diaz in order to obtain the invention as

specified in Claims 5 and 6.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kryskow et al. (US Patent 4491946) hereinafter referred to as Kryskow in view of Diaz

et al. (US Patent 4858232) hereinafter referred to as Diaz, further in view of Aggers et

al. (US Patent 4949337) hereinafter referred to as Aggers.

With respect to Claim 7, Kryskow discloses a method of communicating between

a plurality of peer network devices in a queue on a data communications network, each

of the devices having the ability to pass a token for granting message transmission

rights on the network, (Kryskow Column 5 Lines 30-40) the method comprising the

steps of: a. generating a message within one of the plurality of peer network devices,

the message including a single-byte field, the single-byte field including a grant bit that

determines whether the said peer network device intends to pass the transmission

rights token to the subsequent sequential peer network device on the queue;(Kryskow

Column 28 Lines 30-50) b. sending the generated message to the data communications

network (Kryskow Column 1 Lines 10-15); c. the subsequent sequential peer network

device determining from the message control field grant bit whether the token is to be

passed to it; (Kryskow Column 28 Lines 45-50) d. passing the token according to the

message control field grant bit; (Kryskow Column 1 Lines 10-15) e. the intended

message destination device receiving and complying with the generated message;

(Kryskow Column 1 Lines 10-15) f. repeating steps "a" through "e" above for each

sequential peer network device until token is passed to the last device in the queue

(Kryskow Column 9 Lines 45-55); g. the device passing the token from the last device to

the first device in the queue; h. continuously repeating steps "a" through "g." (Kryskow

Figure 1)

With respect to Claim 8, Kryskow discloses the method of claim 7 including the

additional steps of: i. identifying any non-responsive peer network device in the queue;

(Kryskow Column 5 Lines 50-65 Column 37 Lines 30-35).

With respect to Claim 9, Kryskow discloses the method of claim 8 including the

additional steps of: k. occasionally checking any non-responsive peer network devices

for a response; (Kryskow Column 5 Lines 50-65 Column 37 Lines 30-35) and l.

returning each such responsive device to the queue.

With respect to Claim 10, Kryskow discloses the method of claim 9 including the

additional steps of: m. occasionally checking beyond the end of the queue for additional

new devices; and n. adding each such additional device to the queue.(Kryskow Column

5 Lines 50-65)

However, with respect to Claims 7-10, while Kryskow describes a message

format that is adaptable to any high level data communications (HDLC) protocol,

Kryskow does not disclose of the message format including a designated control field to

hold the indicators described in Claims 7-10. Kryskow does not disclose of a master

device in the system, such master device being the only active master device at any

point in time and performing as described in Claims 7-10. With respect to Claim 8,

Kryskow does not disclose generating a message and passing the token for said non-

responsive device each time through the queue.

Diaz discloses of a message format that includes a control field as part of the

frame message. The control field provides sufficient information to independently

specify a type of service and specifying various service parameters. (See Diaz Column

8 Lines 30-35)

Kryskow and Diaz are analogous art because they present concepts and

practices regarding message formats for use in communications systems using token-

passing techniques. It is respectfully suggested that at the time of the invention it would

have been obvious to a person of ordinary skill in the art to include a separate and

distinct control field as described by Diaz as part of the message frame in order to

contain various information related to token control and message control for the token-

passing communication system described by Kryskow. The suggested motivation for

doing so would have been to have a central location for keeping control information so

that the message is processed and routed correctly through the different devices and

communication layers.

Therefore it would have been obvious to combine the control field described by

Diaz with the message format described by Kryskow in order to obtain the frame

message format that includes a control field.

However, while the combined teachings of Kryskow and Diaz, when applied

together, are enough to substantially disclose the frame message format described in

Claims 7-10, Kryskow and Diaz do not disclose of a master device in the system, such

master device being the only active master device at any point in time and performing

as described in Claims 7-10. With respect to Claim 8, the combined teachings of

Kryskow and Diaz not disclose of generating a message and passing the token for said

non-responsive device each time through the queue.

Aggers discloses of a token passing communication network having a master

node maintaining a master list of nodes. The master node shall specify the order in

which the token is passed. (Aggers Abstract, Column 1 Lines 55-60) Furthermore,

Aggers discloses of a token message generator (Aggers Figure 4, Column 8 Lines 25-

35) such that a message and/or a token is passed for any non-responsive devices in the

system.

Kryskow , Diaz, and Aggers are analogous art because they present concepts

and practices regarding communications systems using token-passing techniques. It is

respectfully suggested that at the time of the invention it would have been obvious to a

person of ordinary skill in the art to have a master device as described by Aggers in the

method described by the combined teachings of Kryskow and Diaz, such master device

(using a token message generator) being able to generate messages and tokens for

any non-responsive devices in the system. The suggested motivation for doing so

would have been to allow for maximum flexibility in controlling the token-passing

mechanism, both within the local bus and also across multiple networks. Also, as

Aggers suggests, having the master node facilitates the reconfiguration process, in case

the need arises.

Therefore it would have been obvious to combine the practice of having a master

node in the network described by Aggers with the message format and method

described by the combined teachings of Kryskow and Diaz in order to obtain the

invention as specified in Claims 7-10.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kryskow

et al. (US Patent 4491946) hereinafter referred to as Kryskow in view of Diaz et al. (US

Patent 4858232) hereinafter referred to as Diaz, further in view of Aggers et al. (US

Patent 4949337) hereinafter referred to as Aggers, further in view of Segarra (US

Patent 4609920).

With respect to Claim 11, the combined teachings of Kryskow Diaz and Aggers,

when applied together, substantially disclose the method of claim 10 including the

additional steps of: o. the master device establishing a plurality of sequential devices on

the queue; p. the master device passing the token from the last device to the first device on the queue; q. the master device occasionally allowing the token to be passed from the last device to the next sequential device in the queue.

However, the combined teachings of Kryskow, Diaz and Aggers do not disclose of any priority assignments for the devices in the network, such priority assignments being a consideration in the token passing mechanism.

Segarra discloses of network wherein a priority level indicating a frequency of allocation of the token is assigned to each network device, such that token is passed from the highest priority devices to the lowest priority devices (Segarra Column 1 Lines 10-20 Column 2 Lines 55-65)

Kryskow , Diaz, Aggers and Segarra are analogous art because they present concepts and practices regarding communications systems using token-passing techniques. It is respectfully suggested that at the time of the invention it would have been obvious to a person of ordinary skill in the art to allow priority levels to be assigned to each network device as described by Segarra in the system described by the combined teachings of Kryskow, Diaz, and Aggers such that higher priority devices receive token control more frequently than non-priority devices. The suggested motivation for doing so would have been for the system administrator to select devices that have higher probability of providing relevant information and allocate the token more frequently for those devices. In a video surveillance system for a bank for example, cameras directed at the teller counter might be assigned a higher priority than cameras directed at the parking lot or the ATM machine. Priority assignments also help

with regards to load balancing when dealing with networks or devices with a significant

difference in volume, bandwidth, and other performance considerations. ·

Therefore it would have been obvious to combine the practice of assigning

priority levels to each device in the network as described by Segarra with the message

format and method described by the combined teachings of Kryskow, Diaz and Aggers

in order to obtain the invention as specified in Claim 11.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Please refer to the enclosed PTO-892 form for details.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Greg Bengzon whose telephone number is (571) 272-

3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Cuchlinski can be reached on (571)272-3925. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

gcb

WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2900